STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

AMEREN TRANSMISSION COMPANY OF ILLINOIS	)	
	)	
Petition for a Certificate of Public Convenience and	)	
Necessity, pursuant to Section 8-406.1 of the Illinois	)	Docket No. 12-0598
Public Utilities Act, and an Order pursuant to Section 8-	)	
503 of the Public Utilities Act, to Construct, Operate and	)	
Maintain a New High Voltage Electric Service Line and	)	
Related Facilities in the Counties of Adams, Brown,	)	
Cass, Champaign, Christian, Clark, Coles, Edgar, Fulton,	)	
Macon, Montgomery, Morgan, Moultrie, Pike,	)	
Sangamon, Schuyler, Scott and Shelby, Illinois.	)	

INITIAL BRIEF OF AMEREN TRANSMISSION COMPANY OF ILLINOIS

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I. INTRODUCTION

Ameren Transmission Company of Illinois (ATXI or the Company) seeks authority under Sections 8-406.1 and 8-503 of the Public Utilities Act (Act) to build and operate a 345 kV transmission line and related facilities (the Illinois Rivers Project or Project) through central Illinois. Once constructed, the Project will not only enhance the reliability of the electrical grid throughout central Illinois, but also facilitate the flow of renewable energy and improve reliability throughout the footprint of the Mid-Continent Independent System Operator (MISO). Under any measure, the benefits of this Project will greatly exceed its costs. And despite spanning approximately 375 miles, no objections have been raised by the vast majority of directly affected landowners.

Section 8-406.1(f) of the Act requires the Illinois Commerce Commission (Commission or ICC) to grant a certificate of public convenience and necessity "if the Project will promote the public convenience and necessity" as determined by three factors: (i) the need for the project; (ii) the applicant's managerial, supervisory and technical capability; and (iii) the financial capability to construct the Project without adverse consequences to customers. 220 ILCS 5/8-406.1(f). The record establishes that ATXI has satisfied each factor. No one disputes the evidence explaining how ATXI's parent, Ameren Corporation, will finance the Project. No one has challenged ATXI's managerial, supervisory and technical capability.[1] And only one party challenged the need for the Project – not because a transmission line across the state isn't needed, but because in this party's view, ATXI should be building a 765 kV line (and undergrounding much of it) instead of the overhead 345 kV line the Company proposes.

The *only* disputed issues in this proceeding concern where to route the Project. But many

[1] Staff's direct testimony raised a question about what would happen should a management change occur during the Project, but at hearing Staff seemed to signal that its concern had been satisfactorily addressed.

of the routing issues have been resolved as well; some through stipulations, some through modifications agreed to by ATXI, and some because an ATXI-proposed route was never disputed in the first place. Indeed, of the nine segments of the Project, there is significant dispute for only five, and two of ATXI's Recommended Routes are not even contested.

Considering the size of this Project, that there are as few routing disputes as there are is somewhat remarkable. But this did not happen by accident. It happened because ATXI put considerable thought into the routing process, including public meetings and dialogue many months before filing the application. Potential routes were studied, re-studied and then studied some more – all with public input. The initial filing provided substantial information that would have otherwise had to have been sought through discovery. (Tr. 260-61.) And while some Intervenors argued that the expedited process did not leave enough time to explore alternatives to ATXI's proposed routes, the record establishes otherwise. For example, the recommended route between the Mt. Zion and Kansas substations was not initially proposed by ATXI; it was proposed by a group of landowners in that area. Route modifications were made where feasible and appropriate in response to landowners' concerns along other segments as well. Throughout this process, when affected landowners talked, ATXI listened.

But ATXI has not been able to please everybody. It would be naïve to think that the Commission will be able to do so, either. The Project runs from one end of Illinois to the other. There is no denying – *someone* is going to be impacted (anyone who says otherwise is not being forthright with the Commission). (Tr. 235.) It is understandable that many Intervenors would just as soon the "someone" be "someone else." In choosing final routes, however, the Commission must consider the "*public* convenience and necessity." 220 ILCS 5/8-406.1. "The supreme court has repeatedly held that it is the interests of the public as a whole, rather than the

interests of a smaller group of individuals, which are to be protected. Therefore, it is incumbent upon the Commission to make findings on the interests of the public as a whole." Village of Hillside v. Ill. Comm. Comm'n, 111 Ill. App. 3d 25, 31-32 (1st Dist., 1982). ATXI's point is not to suggest that the Commission should ignore the testimony of people that own property near ATXI's recommended routes. The point is that the Commission must consider a broader range of interests than those of individual parties who testified in this case.

The recommended routes proposed by ATXI are intended to promote the greatest good for the greatest number. The Company appreciates that some of the Intervenors, and perhaps even the Commission, may have a different view of whether ATXI has succeeded. With very few exceptions, the Commission's ultimate routing decisions are *not* going to determine whether or not the Project is built. In most cases, ATXI will be able to build the Project along Intervenor-proposed routes, if that is what the Commission orders. Regardless of the routes ultimately approved by the Commission, the evidence overwhelmingly supports issuance of a Final Order authorizing and directing construction of the Illinois Rivers Project.

II. REQUIREMENTS FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

Section 8-406.1 of the Public Utilities Act allows a utility to apply for a Certificate of Public Convenience and Necessity for a new high voltage electric transmission line under an expedited procedure. 220 ILCS 5/8-406.1. Section 8-406.1(f) requires that the Commission grant a certificate:

> if, based upon the application filed with the Commission and the evidentiary record, it finds the Project will promote the public convenience and necessity and that all of the following criteria are satisfied:

> (1) That the Project is necessary[2] to provide adequate, reliable, and efficient service to the public utility's customers and is the least-cost means of satisfying the service needs of the public utility's customers or that the Project will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least cost means of satisfying those objectives.
>
> (2) That the public utility is capable of efficiently managing and supervising the construction process and has taken sufficient action to ensure adequate and efficient construction and supervision of the construction.
>
> (3) That the public utility is capable of financing the proposed construction without significant adverse financial consequences for the utility or its customers.

(Id.) These criteria are analyzed in Sections III, V and VI below.

In addition, Section 8-406.1 requires submission of certain information to support an application under that section, and sets forth a process for holding public meetings in counties affected by the proposed project. (Id.) Subsections 8-406.1(a), (d), and (e) contain information requirements a utility must include in its application, publish in official State newspaper or on a dedicated Internet website. (Id.) ATXI has provided all the required information under Section 8-406.1. (ATXI Ex. 1.1.) ATXI has paid the required fee to the ICC, as required by statute. (ATXI Ex. 1.0 (Borkowski Dir.), p. 11.) ATXI also published notice of its Petition in the state newspaper within 10 days of the date of its filing. (Id.; Proof of Publication, filed Dec. 11, 2012.) Further, ATXI provided newspaper notice and held the required public meetings in all the counties where the Project is intended to be built. (ATXI Ex. 1.0, p. 11; see also, ATXI Exs. 4.8, 4.3.) A Project website had also been established.

No party disputes that ATXI has filed its Petition in accordance with Section 8-406.1.

[2] "Necessary" does not mean "indispensible." "When the statute requires a certificate of convenience and necessity, the word 'necessity' is not always used in the sense of 'indispensably requisite.' If it is needful and useful to the public it is necessary." Eagle Bus Lines, Inc. v. Ill. Comm. Comm'n, 3 Ill. 2d 66, 78 (1954) (holding that a new bus line would serve the public convenience and necessity).

(ATXI Ex. 10.0C (Rev.) (Borkowski Reb.), p. 9.) The only testimony concerning ATXI's compliance with statutory filing requirements is that of Staff witness Mr. Greg Rockrohr, who states, "In my opinion, ATXI has satisfied these Section 8-406.1 requirements." (ICC Staff Ex. 1.0R, p. 10.)

III. OVERALL NEED FOR PROPOSED FACILITIES

The Illinois Rivers Project entails construction of approximately 375 miles of 345 kV transmission lines and associated facilities, literally spanning the entire width of the State of Illinois. The Project will connect directly to transmission facilities in Indiana and Missouri, and indirectly to the rest of the regional transmission grid overseen by MISO, a Regional Transmission Operator (RTO) approved by the Federal Energy Regulatory Commission, that is responsible for transmission planning, reliability and market monitoring in an 11 state and one Canadian province region.

In order to certificate the Project, the Commission must find "that the Project is necessary to provide adequate, reliable, and efficient service to the public utility's customers and is the least-cost means of satisfying the service needs of the public utility's customers," or "that the Project will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least cost means of satisfying those objectives." 220 ILCS 5/8-406.1(f)(1). The Illinois Rivers Project does both. The Project is necessary to provide adequate, reliable, least-cost service to customers, *and* will promote development of an effective, efficient, competitive electricity market. As Staff witness Mr. Rockrohr explains:

> While it is possible that ATXI or AIC could construct alternative Projects to resolve specific loading and voltage issues within Illinois, the Illinois Rivers Project appears to me to be a superior approach, as it addresses needs within MISO's entire operating region: not only needs within Illinois. Since costs for the Illinois

> Rivers Project would be spread across the entire MISO footprint, Illinois customers would bear approximately 9% of the Project cost, whereas costs for correcting local reliability and voltage issues with separate Projects in a piecemeal fashion might be born exclusively by ratepayers within the Ameren footprint. Since MISO's studies demonstrate the need for an additional 345 kV line across the state even if reliability and voltage issues were separately resolved, the aggregate cost of all the separate Projects plus a 345 kV transmission line across the state are likely to be higher. Therefore, resolving the reliability and voltage issues as part of the larger Illinois Rivers Project would be beneficial to electric customers in Illinois, due to the cost sharing methodology for MISO Multi-Value Projects. … I have no reason to question MISO's conclusion that an additional 345 kV line across central Illinois is necessary and the least cost means to satisfy the service needs of not only electric utility customers in Illinois, but also electric utility customers in the entire MISO footprint.

(ICC Staff Ex. 1.0R, pp. 6-7.)

The Project came into being as part of a regional solution to the regional needs of the electric grid, as part of a portfolio of Multi-Value Projects (MVPs) that were approved by the MISO Board of Directors in December 2011 and slated for development across the MISO footprint. (ATXI Ex. 2.0 (Kramer Dir.), p. 10.) The regional MVP Portfolio of projects "provides additional connectivity across the grid, reducing congestion and enabling access to a broader array of resources by load in Illinois and elsewhere." (MISO Ex. 1.0, p. 19.) The methodology employed by MISO to evaluate and identify MVPs has been approved by the FERC because it is "an important step in facilitating investment in new transmission facilities to integrate large amounts of location-restrained resources, including renewable generation resources, to further support documented energy policy mandates or laws, reduce congestion, and accommodate new or growing loads." (ATXI Ex. 9.0 (2d Rev.) (Frame Dir.), p. 6 (citing Midwest Indep. Transmission Sys. Operator, Inc., 133 FERC ¶ 61, 221 (Dec. 16, 2010).)

The Project was developed through a multi-year MISO planning process that began with

the Regional Generation Outlet Study (RGOS) in 2008. The goal of the RGOS was to create a regional transmission plan that would enable states within the MISO region to meet relevant renewable portfolio standards[3] (RPS) at the lowest delivered wholesale energy cost. (MISO Ex. 1.0 (Rev.), p. 17.) The RGOS was the first step in a very lengthy and detailed analysis of the transmission system that eventually led to the determination that the transmission lines identified as MVPs (including the Project) are necessary. (ATXI Ex. 2.0, p. 11.) The goal of this analysis was to design a transmission portfolio which takes advantage of the linkages between local and regional reliability and economic benefits to promote a competitive and efficient electric market within MISO. (MISO Ex. 1.0 (Rev.), p. 18.) The portfolio was developed using reliability and economic analyses, applying several future scenarios to determine the robustness of the designed portfolio under a number of potential energy policies. (Id.)

The result of this development process was the portfolio of MVPs (MISO Ex. 1.0 (Rev.), p. 19.) As stated in MISO's MTEP11:

> MISO staff recommends that the proposed Multi Value Project (MVP) portfolio be approved … based on the strong reliability, public policy and economic benefits of the portfolio that are distributed across the MISO footprint in a manner that is commensurate with the portfolio's costs. In short, the proposed portfolio will:
>
> - Provide benefits in excess of its costs under all scenarios studied, with its benefit to cost ratio ranging from 1.8 to 3.0.
> - Maintain system reliability by resolving reliability violations on approximately 650 elements for more than 6,700 system conditions and mitigating 31 system instability conditions.
> - Enable 41 million MWh of wind energy per year to meet renewable energy mandates and goals.
> - Provide an average annual value of $1,279 million over the first 40 years of service, at an average annual revenue requirement of $624 million.
> - Support a variety of generation policies by using a set of energy zones which support wind, natural gas and other fuel sources.

[3] 20 ILCS 3855/1-75(c).

(ATXI Ex. 2.0, p. 19.)

The MVP study process ultimately determined that a 345 kV path was required through central Illinois. (MISO Ex. 1.0, pp. 19-22.) Only one witness in the case, Dr. Magdi Ragheb, disputed this conclusion, claiming generally that the Project is "undersized," is being "rushed to market," and failed to adequately consider other alternatives. And even Dr. Ragheb acknowledges support for "the development of renewable energy resources, particularly wind resources in the Midwest" and that "adequately designed transmission lines are needed to effectively dispatch the electricity from the generation location to consumers." (Ragheb Family Ex. 1.0, pp. 6-7.) In particular, Dr. Ragheb advocated constructing a line using HVDC technology or a 765 kV instead of 345 kV. (Tr. 688.) Dr. Ragheb's position, however, ignores the extensive, comprehensive and lengthy MVP development process, going back to at least 2008 as discussed above – a process that was open to all stakeholders, who had multiple opportunities to present their alternatives and ideas for consideration, and considered various alternatives. That process was not a "rush to market." And in fact, both HVDC and 765 kV alternatives *were* considered. (ATXI Ex. 2.0, pp. 27-28.) HVDC was ultimately not adopted, and a 765 kV line was only selected for a portion of the MVP portfolio where it was the most appropriate solution. (Id., p. 28.) As described by MISO witness Mr. Jeff Webb in his rebuttal testimony, the MVPs are correctly sized (both voltage level and current carrying capacity), provide the needed benefits, and is the overall least cost solution to provide all the listed benefits. (MISO Ex. 2.0, pp. 3-7.) In the end, Dr. Ragheb's appears to be more concerned with the location of the transmission line near his property, as his testimony at hearing shows:

> Q. If ATXI's proposal were to site a 765-kV line across the northern border of your property, would that alleviate your concern that you've expressed in the case?

> A. No, it won't, and our suggestion for the alternate line is to go from the County Road 600 north, a little north on your map, to County Road 700 North where an existing power line exists already, and the suggestion there is that all you can do is simply overpower it, repower it and go to the 765-kilovolt.

(Tr. 688-89.)

During the MVP studies ATXI identified potential transmission expansions that were consistent with the regional needs and would also provide reliability benefits to Illinois customers. (ATXI Ex. 2.0, p. 16.) The Illinois MVPs were then designed to achieve these reliability goals while still providing the overall benefits of the MVP portfolio. (MISO Ex. 1.0, pp. 25-26.) For the benefits of the Project to be realized, the Project must connect to the existing system and deliver energy to the load. This resulted in the selection of certain substation locations as "drop off" points for the Illinois MVPs, at which the MVPs could connect to the existing 138 kV system and thereby provide the needed reliability benefits. (ATXI Ex. 2.0, p. 22.) The substations selected provide access to numerous 138 kV lines which distribute the energy throughout Illinois. (Id., pp. 23-24.) ATXI concluded that the Project so connected eliminates the projected exposure to several post contingency overloads, and eliminates the projected exposure to low voltages and potential voltage collapse from several double contingency scenarios, as discussed below. (ATXI Ex. 2.0, p. 19.)

The Project consists of four of the approved MVPs, totaling approximately 375 miles of new 345 kV transmission lines connecting to facilities in Missouri and extending generally eastward to substations in or near Quincy, Meredosia, Ipava, Pawnee, Pana, Mt. Zion in the Decatur area, and Kansas, and then eastward to connect to the 345 kV system in Indiana. (ATXI Ex. 2.0, pp. 20-21.) An additional portion from Sidney to Rising, Illinois will consist of a new 345 kV line connecting the existing Sidney Substation and the existing Rising substation. (Id.) New breaker stations or expansions of existing stations will be constructed at Quincy,

Meredosia, Ipava, Pawnee, Pana, Mt. Zion, Kansas, Sidney, and Rising. (Id.) A 345/138-kV transformer will be installed at each of the Quincy, Meredosia, Pawnee, Pana, Mt. Zion, and Kansas substations. (Id.) The proposed in-service dates range from 2016 to 2018. (ATXI Ex. 2.4.) In particular, the following portions have in service dates of 2016: River to Quincy, Quincy to Meredosia, Pana to Mt. Zion and Sidney to Rising that could be affected by any delay, as discussed below.

a. The Project provides regional electric market benefits that "will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least cost means of satisfying those objectives."

The Illinois Rivers Project will promote the development of an effectively competitive electricity market that operates efficiently in several ways. In general, it will allow greater amounts of low-cost wind energy resources to reach Illinois consumers, promoting the development of an effectively competitive electricity market that operates efficiently and thereby lowering both the costs for meeting Illinois consumers' needs for electricity and renewable energy. (See generally, Wind on Wires Ex. 1.0.) The MVP portfolio of projects that includes the Illinois Rivers Project provides additional connectivity across the grid, reducing congestion and enabling access to a broader array of resources by loads in Illinois and elsewhere. (MISO Ex. 1.0 (Rev.), p. 19.) These improvements increase market efficiency, competitive supply, and provide opportunity for economic benefits to ratepayers well in excess of the portfolio costs. The MVP portfolio, including the Illinois Rivers Project, represents the overall best solution for delivering these improvements, when considering generation, transmission, and other factors based on the expected future conditions. (Id.)

The MVP portfolio will produce substantial market benefits. The MVPs allow for a more efficient dispatch of generation resources, opening markets to competition and spreading the

benefits of low cost generation throughout the MISO footprint. (MISO Ex. 1.0 (Rev.), pp. 24-25.) These benefits reflect the savings achieved through the reduction of transmission congestion and through more efficient use of generation resources. MISO analyses indicated that the MVP portfolio will produce an estimated $12.4 to $40.9 billion in present value adjusted production cost benefits to the aggregate MISO footprint under existing energy policies. (Id., p. 24.) Under additional possible futures, this benefit increases to a maximum present value of $91.7 billion. (Id., p. 25.) Additional benefits included reductions in operating reserve requirements, planning reserve margin requirements, transmission system losses, capital costs of renewable resources, and deferrals of transmission investments. (Id.) These additional factors contribute between $3.1 billion and $8.2 billion in additional present value of benefits above the production cost savings. (Id.)

In addition, Illinois' RPS requires that an increasing proportion of each utility's total supply to retail customers be generated from cost-effective renewable sources, with a minimum of 10% renewable by 2015 and 25% renewable by 2025. See 20 ILCS 3855/1-75(c). A majority of the required renewables must be generated by wind. Id. If the Project is not constructed, approximately 34% of the existing and planned wind development within the MISO portion of Illinois would need to be curtailed in order to maintain reliable system loading levels. (MISO Ex. 1.0 (Rev.), p. 26.) The Project will ensure that the transmission system continues to operate reliably while delivering the required levels of renewable energy. (ATXI Ex. 2.0, p. 16.)

Finally, the Project will have a positive effect on market pricing for electricity. Effective economic competition is a function of supply and demand. Increases in the level of supply available to a market will result in lower prices, and, in turn, lowered prices will result in increased competition. (See ATXI Ex. 9.0 (2d Rev.) (Frame Dir.), pp. 7-8.) The Project has a

positive effect on the competitive marketplace in Illinois because adding new transmission capacity to the existing electrical system, as the Project will do, increases the supply of electric energy in the MISO Illinois region by allowing more imports and by facilitating construction of new wind generation capacity. (Id.)

As demonstrated by ATXI's expert witness Mr. Rodney Frame, wholesale electric energy prices in the MISO Illinois region will be lower after construction of the Project. (See ATXI Exs. 9.0 (2d Rev.), p. 16; 9.3.) Mr. Frame also quantified the additional wholesale electric energy supply in the market area as a result of the Project. (See ATXI Exs. 9.6 (Rev.); 9.0 (2d Rev.), p. 19.) As a result of the increased supply within the market area, and the decreased wholesale electric energy prices, payments by customers within the MISO Illinois region will be substantially reduced. (ATXI Exs. 9.0 (2d Rev.), pp. 17-18; 9.4 (Rev.); 9.5 (Rev.).) Further, in evaluating the cost-benefit ratio for the Project, solely with respect to the MISO Illinois region, Mr. Frame concluded that the benefits of the Project exceed the costs by a substantial margin. (Id.) Thus, the Project is equitable to customers in the MISO Illinois region, and implementation of the Project is an economically efficient outcome. (ATXI Exs. 9.0 (2d Rev.), p. 18; see also 220 ILCS 5/8-406.1(f)(1).)

Mr. Frame concluded that because the Project increases the supply available to the MISO Illinois region and thereby decreases both wholesale electric energy prices and payments by customers within the region, it will "promote the development of an effectively competitive electricity market that operates efficiently, [and] is equitable to all customers." (ATXI Ex. 9.0(2d Rev.), p. 18.) Mr. Frame's analyses and conclusions were not contested in any way by any party.

b. The Project will provide local reliability benefits and so "is needed to provide adequate, reliable and efficient electric service and is the least-cost means of satisfying the service needs."

MISO and ATXI, through Ameren Services (AMS), conducted a reliability analysis of the ATXI and Ameren Illinois transmission systems during the MISO MVP study process. (MISO Ex. 1.0 (Rev.), p. 19.) As ATXI witness Mr. Dennis Kramer explained, in the planning process, AMS identified known reliability concerns that could potentially be addressed by the Project when it is fully implemented and integrated into the Ameren Illinois system as well as connected to the 345 kV transmission systems in Missouri and Indiana. (ATXI Ex. 2.0, p. 26.) In working with the MISO to develop the Project, AMS sought to design the Project to address known reliability concerns where feasible. AMS utilized its knowledge of load and generation locations as well as the transmission system topology in attempting to maximize the reliability benefits provided by the Project. (Id.)

As a result of its analysis of several scenarios (see generally, ATXI Exs. 2.0, pp. 26-29; 2.5-2.18), ATXI determined that, when fully integrated into the transmission system,[4] the Project

[4] In his direct testimony, Staff witness Mr. Rockrohr asserted that "many of the benefits that ATXI and MISO attribute to the Illinois Rivers Project will be realized only if AIC connects its existing 138 kV transmission system to ATXI's proposed new transformers. There are currently no proposals before the Commission to make those connections and no commitments by either ATXI or AIC to make those connections in the future." (ICC Staff Ex. 1.0R, pp. 13-14.) ATXI witnesses Ms. Borkowski and Mr. Kramer explained that MISO's tariff and associated transmission owners agreement, of which both AIC and ATXI are parties, obligate transmission owners to make connections as directed by MISO for the approved MVPs. (ATXI Exs. 10.0 (Rev.), p. 10; 11.0, pp. 5-6.) Also, AIC's system will receive a significant number of reliability benefits from the Project, which can only be realized by connecting the existing AIC system to the ATXI proposed substations. AIC would need to invest in various other projects to maintain reliable service in the absence of its system connections with the Project. (ATXI Ex. 11.0 (Rev.), p. 6.) Thus it is in AIC's interest to connect. Ms. Borkowski also provided documentation of a commitment from AIC. (ATXI Ex. 10.3.) In light of this, at hearing, Mr. Rockrohr indicated his concerns had been addressed. (Tr. 251-52.) Therefore, ATXI considers this issue resolved.

will address a number of NERC Category B and Category C violations[5] while delivering renewable energy necessary to meet State RPS. The Project will also provide local voltage support to Quincy, Meredosia, Pawnee, Pana, Decatur and Champaign area loads and will reduce the exposure to dropping significant amounts of load for certain outage conditions during periods of high load demand. (ATXI Ex. 2.0, p. 28.) In all, the Project will address approximately 50 NERC Category B and 118 Category C violations projected at 2021 load levels. (See ATXI Exs. 2.0, p. 27-28; 2.5-2.18.) Moreover, the Project represents the first significant system upgrades within the Project area in more than 20 years. (ATXI Ex. 2.0, p. 5.)

The Project represents the "least-cost" means of satisfying these reliability concerns. As part of its evaluation process, MISO investigated alternative designs for the Project. (See ATXI Ex. 2.0, p. 18 (describing alternate expansion portfolios and project designs considered by MISO).) For example, a Palmyra to Sioux 345 kV line was considered as an alternative to the portions of the Project between the Mississippi River and Pawnee, and a Tazewell to Brokaw to Reynolds 345 kV line was considered as an alternative to the portions of the Project between Pawnee and Sugar Creek. (MISO Ex. 1.0 (Rev.), pp. 22-23.) These alternatives were rejected because they did not mitigate all reliability concerns, required longer and more costly rights-of-way, traversed more populated areas, or resulted in imprudent use of local lower-voltage facilities. (MISO Ex. 1.0 (Rev.), pp. 23-24.) Overall, MISO found that alternative paths for the Project were less effective and more costly due to longer line lengths. (MISO Ex. 1.0 (Rev.), p.

[5] A Category B violation exists if the interconnected transmission system cannot meet the performance requirements of NERC TPL-002 that the system remain stable and both thermal loadings and voltages are within applicable ratings following the loss of a single Bulk Electric System (BES) element. A Category C violation exists if the interconnected transmission system cannot meet the performance requirements of NERC TPL-003 that the system remain stable and both thermal loadings and voltages are within applicable ratings following the Loss of Two or More Bulk Electric System (BES) Elements. The controlled interruption of customer Demand, the planned removal of generators, or the Curtailment of firm (non-recallable reserved) power transfers may be necessary to meet this standard.

24.)

The Project costs will be spread across the entire MISO footprint so that MISO Illinois customers would bear approximately 9% of the total cost, whereas costs for correcting each of the identified reliability issues in piecemeal projects would be borne exclusively by Ameren Illinois area ratepayers. (Staff Ex. 1.0R, p. 6.) If the Project was not constructed, the reliability issues identified above would ultimately have to be addressed by the development and construction of other new transmission projects. (ATXI Ex. 2.0, p. 29.) In other words, construction of the Project will allow ATXI to avoid the need to construct some reliability projects in the future. ATXI identified at least seven potential projects, costing an estimated $613 million that could be required by 2022 if the Illinois Rivers Project is not constructed. (ATXI Ex. 11.4.) The alternative projects would be needed to address local reliability issues and therefore could be classified as Baseline Reliability Projects, whose cost would be allocated entirely to Ameren Illinois area customers. Therefore, if constructed, it is expected that the cost of these alternative projects would be borne by Ameren Illinois area customers. (Id.)

Because the project addresses reliability issues across Illinois, it is necessary to provide adequate, reliable, and efficient service to customers. See 220 ILCS 5/8-406.1(f)(1). Additionally, as the Project is the overall least cost alternative to provide the complete set of benefits sought and reduces the cost that would otherwise be born by Ameren Illinois area customers to address these reliability issues, it is the least-cost means of satisfying the service needs of Ameren Illinois customers.

IV. LEAST-COST AND THE PROPOSED TRANSMISSION LINE ROUTES

In assessing ATXI's recommended routes for the transmission line and the routes proposed by other parties, the Commission should be aware of several things. One is that any routing decision inherently involves tradeoffs between competing interests – few routes will

satisfy everyone. Second, the concept of least cost includes factors beyond just dollar construction costs and routes must be selected based on consideration of all factors, not just dollar cost. "Least cost" does not mean "lowest dollar cost," which is an apparent source of confusion for some of the parties. Finally, the Commission should be aware that ATXI is committed to mitigating the impacts that the route imposes, where feasible and appropriate, through pole placement and compensation. This will take place in the line design phase and during construction as was explained by ATXI witness Mr. Jerry Murbarger.

The Recommended Routes Have Been Selected Through a Comprehensive Process:

As Staff witness Mr. Rockrohr stated at hearing, "[n]o matter what route that the Commission were to adopt, somebody would be burdened by having a transmission line [on their property]." (Tr. 235.) There is simply no way to route the Project from the Missouri-Illinois state line to the Illinois- Indiana state line without affecting residences or farmland. (Tr. 248-49; 724.) Thus routing for the transmission line necessarily involves many factors and considerations. These factors include varying impacts to different land uses, stakeholders, landowners or other members of the general public; cost considerations; constructability or other physical considerations; regulatory compliance; and other environmental considerations. (ATXI Ex. 4.0 (Murphy Dir.), p. 23.) An example is the choice of whether to follow section lines through farmland or roads. As ATXI witness Ms. Donell Murphy testified:

> Q. And it's unrealistic to believe that this project could be routed entirely away from agricultural use areas, is that right?
>
> A. That is true, and I'd also point out that this is kind of a classic example if you've got any inherent conflict where we've got one exercise that identifies that existing residences are highly sensitive and yet we've got a majority preference to route along roads in the rural area and follow the curve along roads. So it really kind of goes to that notion of balances and tradeoffs.

(Tr. 738: 2-12.)

Thus, as an example, ATXI's recommended Primary Route from Pana to Mt. Zion follows section lines and impacts farmland, but fewer residences, while the Highway 51 alternate route supported by Intervenor Mr. Leon Corzine follows a road and impacts more urban areas, businesses and residences, but less farmland. (Tr. 285-92.)

Another example of the tradeoffs needed in designating routes is the question of whether to parallel existing lines. Several Intervenors suggest ATXI should utilize, to the extent possible, the rights-of-way of existing transmission lines, and, specifically, Ameren Illinois Company d/b/a Ameren Illinois (AIC) transmission lines.[6] Staff witness Mr. Rockrohr also suggests the use of existing AIC transmission lines rights-of-way would be appropriate for certain portions of the Project. (See, e.g., ICC Staff Ex. 1.0R, pp. 23-24, 36, 51.) While ATXI can construct the transmission line parallel to existing lines if so ordered by the Commission, and in fact ATXI has proposed to parallel existing transmission lines for nearly 80 miles as part of this Project, the Commission should be aware of the tradeoff: there are operational and reliability concerns associated with parallel lines. In general, paralleling existing transmission lines is not preferred because, unless there is sufficient separation between the lines, the first line must be taken out of service while the second line is constructed. (ATXI Ex. 12.0 (Rev.) (Hackman Reb.), p. 6.) In addition, while maintenance is being performed on one line, the other may need to be taken out of service so that large equipment can access the area. (Id.) Having two lines down at any given point risks the reliability of the transmission system at large. Moreover, from a reliability perspective, common or adjoining rights-of-way are susceptible to common-mode failures. (Id.)

[6] (See, e.g., Flesner Dir. (Adams County Property Owners (ACPO)), p. 2; Loos Dir. (ACPO), p. 3; Miller Dir. (ACPO), p. 4; Mast Dir. (ACPO), p. 4; Peters Dir. (ACPO); p. 4; MSSCLPG Exs. 1.0 (Bergschneider Dir.), pp. 5-6 and 4.0 (Bergschneider Reb.), pp. 2-3; Ragheb Family Ex. 1.0 (Ragheb Dir.), pp. 14-15; Pearce Dir., p. 4; Ehrhart Dir. (N. Kohl Grocer), p. 12.)

In other words, it increases the probability that, if one line fails, it will cause the adjacent line to fail. That said, as ATXI witness Mr. Hackman out it at hearing regarding paralleling, "[T]here's a good place to use it and a not-so-good place to use it." (Tr. 974:13-14.) Mr. Hackman explained, "[I]t's important to look at the risk of parallel where common-mode failure can occur, and weigh that against . . . that trade-off of benefits; . . . [Siting] power lines has societal benefits, environmental benefits, and costs as well, and we have to balance those, and that's what we take into account when we decide what can be paralleled and what can't be paralleled." (Tr. 975:16-22 – 976:1-2.)

Section 8-406.1 nevertheless requires that ATXI identify at least two alternate routes for a project: "[the] applicant shall provide and identify a primary right-of-way and one or more alternate rights-of-way for the Project. . . ." 220 ILCS 5/8-406.1(a)(1)(B)(viii). In compliance with that requirement, ATXI proposed both a Primary and Alternate Route.[7] The routes were selected as a result of a thorough and extensive route siting analysis, which engaged the public, identified environmental siting criteria, and evaluated cost, conceptual design and constructability. (See ATXI Exs. 4.0, pp. 3-5; 4.3.) The multitude of impacts quantified and analyzed is provided in ATXI Exhibit 4.5.

A key element of the route siting analysis was public input. (ATXI Ex. 13.0C (2d Rev.) (Murphy Reb.), p. 72.) Section 8-406.1 requires three public meetings be held in each county the transmission line would cross. ATXI, however, conducted significantly more public meetings than required by Section 8-406.1. ATXI also provided notice to landowners of these meetings beyond the newspaper notice required by Section 8-406.1, including direct mail invitations. Staff witness Mr. Rockrohr complimented ATXI on the content of these meetings, agreeing that

[7] A second Alternate Route was identified for the Pawnee to Pana portion only.

that the company was giving useful information and engaging the public and testifying that he was: "impressed with the map display that the company had provided at the public meeting. It made it, I felt, very useful for the attendees to find their property in relation to the proposals." (Tr. 261:7-14.) The goal of the public process was to determine the routing factors most important to the public so that these factors could be considered in designing the route. And throughout the process, participants in the process consistently raised two routing considerations for discussion – proximity to existing residences and the potential for impact to agricultural-related uses or activities. (ATXI Ex. 4.0, pp. 10-11.)

Hundreds of route options were methodically identified, reviewed, and either removed from consideration or further studied. (ATXI Ex. 4.3.) Potential route alternatives were iteratively refined to incorporate the public input, ongoing desktop studies and field observations throughout the route selection process. As part of the siting analysis, ATXI evaluated existing linear facilities (transmission lines, pipelines, railroads, etc.) environmental, wetlands and other land use impacts. (Id.) ATXI then evaluated the cost and constructability of proposed routes. (Id.) In addition ATXI consulted with numerous government agencies, including the Illinois Environmental Protection Agency, Illinois Department of Natural Resources, Illinois Nature Preserves Commission, Illinois Historic Preservation Agency, Illinois Department of Transportation, Illinois Department of Agriculture, Federal Aviation Administration, United States Army Corps of Engineers, U.S. Environmental Protection Agency, and the United States Fish and Wildlife Service. This process led to the identification of the Primary and Alternate Routes. The Primary and Alternate Routes were selected because in ATXI's judgment, they best balanced these tradeoffs and: i) resulted in the lowest potential for impact overall; ii) best represented public input; iii) could be permitted; iv) could be constructed; and v) are cost

effective. (ATXI Ex. 4.3.)

The proposal of the Primary and Alternate Routes did not end the routing process, however. The hearing process brought further route considerations to ATXI's attention. Over 70 parties intervened in this proceeding, and 36 parties filed testimony. Many of the Intervenors proposed alternative routes other than ATXI's Primary and Alternate Routes – in all, approximately 24 routes or route modifications were proposed by Intervenors. Although the proponents of many of these route proposals did not provide the reasons why their route should be adopted or other explanation of their routes in testimony (only Moultrie County Property Owners (MCPO) provided a comprehensive discussion of its routes in testimony), ATXI nevertheless evaluated the parties' routing proposals as carefully as possible based on available data. ATXI sought to accommodate as many concerns as it could, where feasible and appropriate and within the limitations of sound engineering judgment, by proposing changes to certain route segments. ATXI entered into seven stipulations with various parties to resolve their concerns regarding certain route segments of the Project. (See ATXI Ex. 10.2 (2d Rev.).) The stipulations represent an attempt to balance the interests of the affected parties and the resulting routes are the consensus that emerged. With respect to the other routes other ATXI recommends for approval below, ATXI sought to balance all factors, in its best judgment, to select the superior route. The recommended routes were selected because they are constructible, best resolve or strike compromises between the Primary and Alternate Routes proposed by ATXI and the concerns raised by Intervenors, best reduce the potential for environmental impact, and are the least-cost option when all factors are taken into account.

ATXI's Recommended Routes are the Best and Least-Cost Options.

As a result of this comprehensive process, and as set forth in detail below, ATXI's

recommended routes provide for the least-cost outcomes, taking all factors into account. "Least cost" is not simply the lowest dollar cost associated with construction and maintenance, as there are other factors that must be considered when determining which route is "least cost." Ill. Power Co., Docket 06-0706, Order, pp. 52, 62 (Mar. 11, 2009); Ill. Power Co., Docket 06-0179, Order, pp. 16-17 (May 16, 2007). Under Staff's analysis, which is based only on length of line and estimated number of dead-end structures, the best route would be a straight line between points A and B because it would be shortest and, consequently, have the least dollar cost. But the true cost of such a route might be great, if it ignored the sensitivities of the communities and individuals it would impact. Moreover, as ATXI witness Mr. Murbarger explains, the shortest and cheapest route is often not practicable or feasible to construct. (Tr. 393-94.) Instead, a true least-cost analysis evaluates a wide range of factors, including environmental impacts and benefits, impacts to existing land uses such as residences, and costs associated with mitigation or off-setting impacts. (ATXI Ex. 13.0C (2d Rev.), p. 5.)

The Commission recognizes that the "least-cost" analysis is not strictly the least dollar cost. In Docket 06-0179, the Commission approved a route that cost approximately $3.5 million more than its alternatives in order to avoid locating the transmission line near residences. For routing purposes, "the proper determination of least cost is not simply a financial analysis, but involves a comprehensive consideration and balancing of the overall costs and externalities against the benefits of the route proposals." Ill. Power Co., Docket 06-0706, Order, p. 52. MCPO routing expert witness Mr. James Dauphinais also recognizes as much: "[t]he examination of the route of the proposed transmission line project includes, but is not limited to, the examination of . . . factors which reflect cost, public health, safety, reliability, environmental impact, historical and archeological impact, community values and aesthetics. . . ." (MCPO Ex.

1.0, pp. 18-19.) ATXI's evidence, as set forth below, shows the recommended routes represent the best balance of interests, are the least cost option and should be selected by the Commission.

The Majority of Intervenor-Specific Concerns Can Be Mitigated.

The route selection process has resulted in a variety of parties raising a variety of very property-specific concerns. The Commission must assess these concerns from the perspective of the public as a whole however, and not based on the concerns of individuals. Village of Hillside v. Ill. Comm. Comm'n, 111 Ill. App. 3d 25, 31-32 (1st Dist., 1982) (noting that considerations such as the impact on the surrounding community from the sale of a utility-owned quarry and ash disposal site to a gravel corporation for use as a sanitary landfill were "not of paramount importance" to a Commission decision on public convenience and necessity). Regardless, the record shows that many of the individual concerns raised by Intervenors in this proceeding can be mitigated or addressed through compensation.

Staff witness Mr. Rockrohr acknowledged, many of the Intervenors' specific concerns can be mitigated during the final detailed design phase in which specific pole locations are determined. (Tr. 249.) ATXI will seek to coordinate with each landowner on placement of the poles, and will adjust pole placement where feasible and appropriate to address specific landowner concerns. (ATXI Ex. 16.0 (Rev.) (Murbarger Reb.), p. 5.) If it is not feasible or appropriate to adjust pole placement, ATXI may also seek to coordinate with the landowner to use taller structures with longer spans, to the extent practicable. (Id.)

ATXI also intends to fairly compensate affected landowners for the impact of the transmission line, so that after the line is constructed, there is no impact upon property resulting in diminution of value beyond that reflected in the compensation paid by ATXI. (ATXI Ex. 15.0 (Rev.) (Trelz Reb.), pp. 13-14.) Upon completion of construction, ATXI representatives also

assess and repair or compensate landowners for damages to crops, soil, fences and other property. (Id., p. 12.) Mr. Trelz testified at hearing, "ATXI is committed to working with all landowners to fairly compensate them." (Tr. 412:1-2.)

ATXI and the Illinois Department of Agriculture have entered into an Agricultural Impact Mitigation Agreement (AIMA) that specifically addresses concerns regarding damage to farmland and crops (during both initial construction and future maintenance on the line). (ATXI Ex. 5.2 For example, a number of witnesses expressed concern about crop damage during construction. ATXI, however will fully compensate farmers for crop loss. (Tr. 423.) With respect to any potential ongoing damage, Mr. Trelz explained "if there are issues that have some element of damage to the landowner's ability to farm the ground or if [the line] minimizes crops in any way, ATXI will negotiate a fair agreement with them." (Tr. 412:4-8.) Another common issue was soil compaction. In response to this concern, Mr. Trelz explained:

> Q. With regard to soil compaction, I assume that you are familiar with the Agricultural Impact Mitigation Agreement?
>
> A. Very much so, yes.
>
> Q. Okay. My understanding is that for crop land that will be impacted by construction,18 inches -- tilling of 18 inches deep will be provided to …to combat soil compaction. Is that accurate?
>
> A. Yeah.
>
> ***
>
> A. It states that the company -- unless the landowner opts to do the restoration work – will chisel to a depth of 18 inches all crop land.
>
> Q. Exactly. And my question with regard to this chiseling, what if that is not adequate for the quality of soil that a particular landowner has?
>
> A. If that is not adequate, we will do it to satisfy the landowner. I mean, we will work with the landowner. If it needs to be deeper, it will be deeper.

(Tr. 415:11 – 416:10.)

Put simply ATXI is committed to addressing landowner concerns. Indeed, Mr. Trelz gave the recent example of a nine-mile transmission line where AMS reached an agreement regarding compensation with every landowner. (Tr. 426:16 – 427:4.)

Moreover, ATXI will seek to acquire rights for a specific purpose only (the transmission line), and not the full fee right to the land to be encumbered by the easement. (ATXI Ex. 15.0 (Rev.), p. 11.) The landowner retains all other existing property rights other than the easement rights ATXI may require. (Id.) Farming, access, and all other uses that do not conflict with the transmission line rights remain with the landowner. (Id.) ATXI's offer of compensation for the easement is intended to fully compensate the landowner for the impact of the transmission line. (Id., p. 14.) Finally, ATXI is obligated to make reasonable efforts to acquire any necessary land rights after the final route has been approved. See, e.g. Ill. Power Co., Docket 10-0173, Order (Nov. 23, 2010), p. 17. In the event ATXI is not successful in its land acquisitions, it must come before the Commission and explain its efforts before obtaining authority to exercise eminent domain. 220 ILCS 5/8-509. Parties who are concerned with damages and the like will have an opportunity to voice their concerns if they believe ATXI has not engaged in good faith negotiations.

A. Mississippi River – Quincy

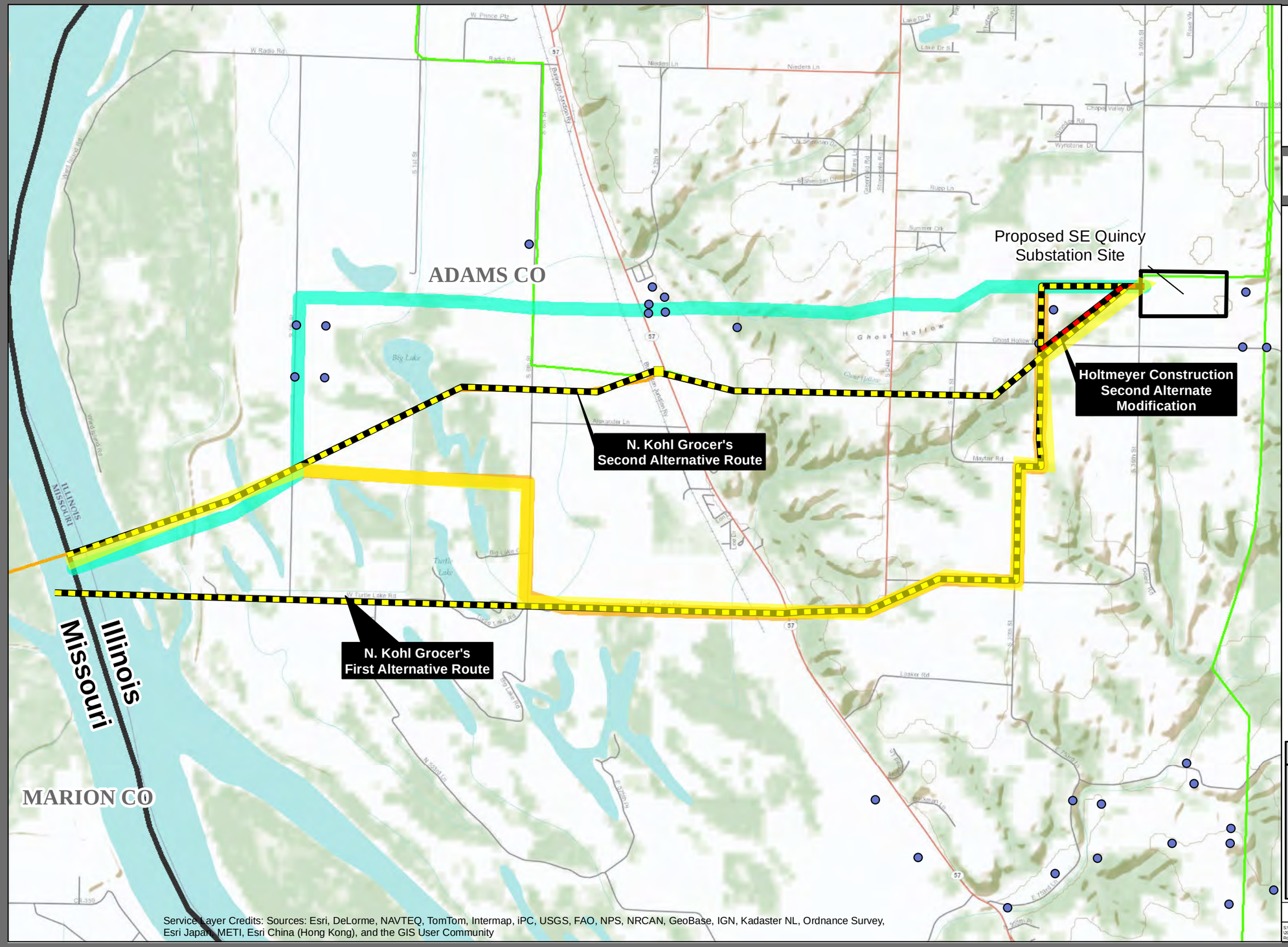
For this portion of the Project, ATXI recommends its Alternate Route, with a slight modification as the transmission line enters the Southeast Quincy Substation, in accordance with the Stipulation it entered into with Intervenors N. Kohl Grocer (NKG) and Matt Holtmeyer Construction (MHC). (Stip. Exs. 4; 6.) This "Stipulated Route": is shown in orange on ATXI Exhibit 13.2 and highlighted on Figure 1, and was designated ATXI's "Rebuttal Recommended Route" in rebuttal testimony. All Intervenors interested in this portion of the Project support the

Stipulated Route. (See id.; ATXI Cross Ex. 6, p. 2 (indicating Mr. Brent Mast's support for the Stipulated Route).) Therefore, ATXI recommends that it be the approved route.[8]

Only Staff witness Mr. Rockrohr, in testimony, expressed support for another route – NKG's Secondary Alternate Route (NKG Route 2). (ICC Staff Ex. 1.0R, p. 24.) (A portion of that route is incorporated into the Stipulated Route. (See ATXI Ex. 13.2 .) Although cost estimates prepared by ATXI at Mr. Rockrohr's request indicate that NKG's Route 2 has a lower projected baseline cost than the Stipulated Route (ATXI Ex. 16.3 (Rev.), p. 1), NKG route 2 will likely require the transmission line to cross an existing transmission line at least two times to avoid displacing residences, may pose problems with respect to right-of-way width near Highway 57, and may pose reliability issues because it would be located on adjoining rights-of-way (or, according to NKG, on double-circuit structures). (ATXI Ex. 13.0C (2d Rev.), pp. 8-9; 12.0 (Rev.), p. 42.) Alleviation of these concerns could increase the cost of the route. As a result, the Stipulated Route is the best option for this portion of the Project.

[8] There are other route proposals for this portion of the Project—ATXI's Primary Route, ATXI's Alternate Route (unmodified), NKG's first alternate route proposal, and MHC's first and second alternative route proposals. However, no party currently recommends approval of these routes.

ATXI Figure 1: Mississippi River - Quincy



Ameren TRANSMISSION

Illinois Rivers Project

Mississippi River to SE Quincy

Legend

- Intervenor Owned Property
- Proposed Intervenor Route
- Primary Route
- Alternate Route
- Segment Option
- Project Study Area
- Proposed Substation Site
- Existing Substation
- Municipal Boundary
- County Boundary
- State Boundary

Existing Transmission Line

- 345,000 (V)
- 161,000 (V)
- 138,000 (V)

Existing Distribution Line

- 69,000 (V)

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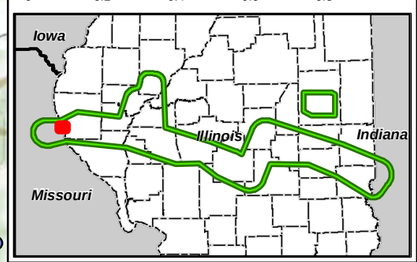

DATE: 04/24/13	Proposed Intervenor Routes
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1. Length of the Line

	Stipulated Route	ATXI Primary Route	ATXI Alternate Route	NKG Second Alternate Route
Estimated Length in Miles	< 6.2	5.3	6.2	4.8

(ICC Staff Ex. 1.0R, p. 24; ATXI Ex. 13.2, p. 1.)

2. Difficulty and Cost of Construction

	Stipulated Route	ATXI Primary Route	ATXI Alternate Route	NKG Second Alternate Route
Estimated Baseline Cost	$22.397 million	$20.385 million	$22.747 million	$19.316 million

(ATXI Ex. 16.3, p. 1.)

3. Difficulty and Cost of Operation and Maintenance

There is no record evidence the Stipulated Route would be more difficult or costly to operate and maintain relative to the other routes proposed. In contrast, as explained, NKG Route 2 likely would be more difficult and more costly to operate and maintain than the Stipulated Route because the line would cross existing facilities in two places, increasing reliability concerns, and because parallel or double circuit towers may be needed, requiring additional vegetation management and maintenance. (ATXI Ex. 12.0 (Rev.), p. 42.)

4. Environmental Impacts

There is no record evidence to indicate the potential environmental impacts resulting from construction of the Stipulated Route would be greater than those resulting from the other proposed routes. Rather, the evidence suggests the Stipulated Route will have minimal environmental impacts. (ATXI Exs. 4.0, pp. 23-36; 4.5, p. 3.) Such impacts will occur regardless of the route approved by the Commission, in any event.

5. Impacts on Historical Resources

There are no known archaeological sites or historic resources within immediate proximity to the Stipulated Route. (ATXI Ex. 4.0, p. 36.)

6. Social and Land use Impacts

The Stipulated Route reflects an optimum location for the transmission line in that it would limit social and land use impacts. ATXI's Primary Route would similarly limit social and land use impacts. (ATXI Exs. 4.0, pp. 8-10; 4.5, p. 1.) Although NKG witness Mr. Ehrhart testified ATXI's Primary Route would make development of his property difficult (see ATXI Ex. 13.0C (2d Rev.), p. 12), should the Commission approve that route, Mr. Ehrhart's concerns could be mitigated or avoided entirely during construction. (ATXI Ex. 12.0 (Rev.), p. 41.) However, as stated, no party currently supports ATXI's Primary Route.

7. Number of Affected Landowners and other Stakeholders and Proximity to Homes and other Structures

Approximately 26 individuals own land located within 250 feet on either side of ATXI's Primary Route for this portion of the Project, and 34 landowners within the 250 feet of ATXI's Alternate Route. (ATXI Exs. 5.0, p. 4; 5.4 (Rev.), pp. 1, 37.) The Alternate Route and the Stipulated Route are substantially the same, and so approximately 34 landowners lie within the 250 feet of the Stipulated Route. (See ATXI Ex. 13.2.) The Stipulated Route would not result in displacement of any residences. (ATXI Ex. 13.0C (2d Rev.), p. 8.) In contrast, NKG's first alternative route proposal would result in displacement of five residences, while NKG's second alternative route proposal would result in displacement of one residence. (Id., pp. 8-9.)

	Residential Structures within 0-75 feet	Residential Structures within 75-150 feet
Stipulated Route	0	Not specified
ATXI Primary Route	0	0
ATXI Alternate Route	0	1
NKG Second Alternate	1	Not specified

(ATXI Exs. 4.5, p. 4; 13.0C (2d Rev.), pp. 8-9.)

8. Proximity to Existing and Planned Development

There is no record evidence the Stipulated Route is proximate to any existing or planned development. NKG witness Mr. Ehrhart testified that NKG's planned development related to its expanded grocery distribution operations would be impacted by ATXI's Primary Route. (See ATXI Ex. 13.0C (2d Rev.), p. 12.) NKG's planned warehouse facility, however, would not be hindered by construction of that route. (ATXI Exs. 4.0, p. 41; 12.0, p. 41.) Regardless, as stated, no party recommends approval for the Primary Route. The Stipulated Route eliminates NKG's concerns.

9. Community Acceptance

All Intervenors with land interests along this portion of the Project support the Stipulated Route, confirming community acceptance of that Route.

10. Visual Impact

The visual impacts, if any, will be substantially the same for any route. There is no record evidence that the Stipulated Route is less preferable with respect to visual impact than any other route proposed for this portion of the Project.

11. Presence of Existing Corridors

ATXI characterizes "opportunities" as "corridors with the potential for sharing or running alongside existing infrastructure, landscape features or other existing facilities, including major roads, pipeline and other utility rights-of-way, property lines and section lines, railroads, secondary roads, and existing transmission line rights-of-way." (ATXI Ex. 4.4.) ATXI's Alternate Route which comprises the majority of the Stipulated Route, emerged, in part, from an evaluation of opportunities and stakeholder input as to preferred opportunities. (ATXI Ex. 4.0, pp. 5, 7.) The Stipulated Route parallels an existing 161 kV line. (ATXI Ex. 13.2, p. 2.) NKG's

Route 2 parallels existing 138 kV and 161 kV transmission lines for its entire length. (ICC Staff Ex. 1.0R, p. 23.) Parallel lines, however, should be used sparingly in order to minimize the risk of common-mode failures. (ATXI Ex. 12.0, p. 10.)

B. Quincy – Meredosia

ATXI recommends the "hybrid" route proposed by Staff witness Mr. Rockrohr for the portion of the Project between the Southeast Quincy Substation and Meredosia, Illinois. (See ATXI Exs. 13.0C (2d Rev.), p. 13; 13.3; see also ICC Staff Ex. 1.0R, p. 29.) The Hybrid Route is shown as the red and black dashed line on ATXI Exhibit 13.3 and highlighted on Figure 2, and was designated the "Rebuttal Recommended Route" in ATXI's rebuttal testimony. The Hybrid Route utilizes ATXI's Primary Route as it leaves the Southeast Quincy Substation, until that route intersects ATXI's Alternate Route just north of County Road 600N. (ATXI Ex. 13.3; see also ICC Staff Ex. 1.0R, p. 29.) The Hybrid Route then follows ATXI's Alternate Route until that route intersects with ATXI's Primary Route at County Road 400N, at which point it follows ATXI's Primary Route into the proposed Meredosia Substation site. (Id.) The only other routes proposed for this portion of the Project—intervener Adams County Property Owners' (ACPO) alternative routes 1, 2, and 3 (ACPO Routes 1, 2, and 3) are not preferable to the Hybrid Route for the reasons discussed below.

Although both ATXI's Primary and Alternate Routes are also constructible, the Hybrid Route is the best option for this segment of the Project because it is cost-effective, has been fully analyzed, and eliminates concerns raised by almost all of the Intervenors who have submitted testimony regarding this portion of the Project. (ATXI Ex. 13.0C (2d Rev.), p. 20.) Thirteen members of the Adams County Property Owners ACPO submitted record evidence concerning the Quincy – Meredosia portion of the Project. The Hybrid Route will resolve concerns regarding the impact of ATXI's proposed routes on the property of 10 out of the 13 testifying

members of ACPO. (ATXI Cross Ex. 6.) And with respect to the concerns of one of the three remaining witnesses, Mr. Stuart Kaiser, the Hybrid Route significantly reduces the amount of his property impacted by the route and passes over a half mile away from his residence and other structures. (Tr. 179-182.)

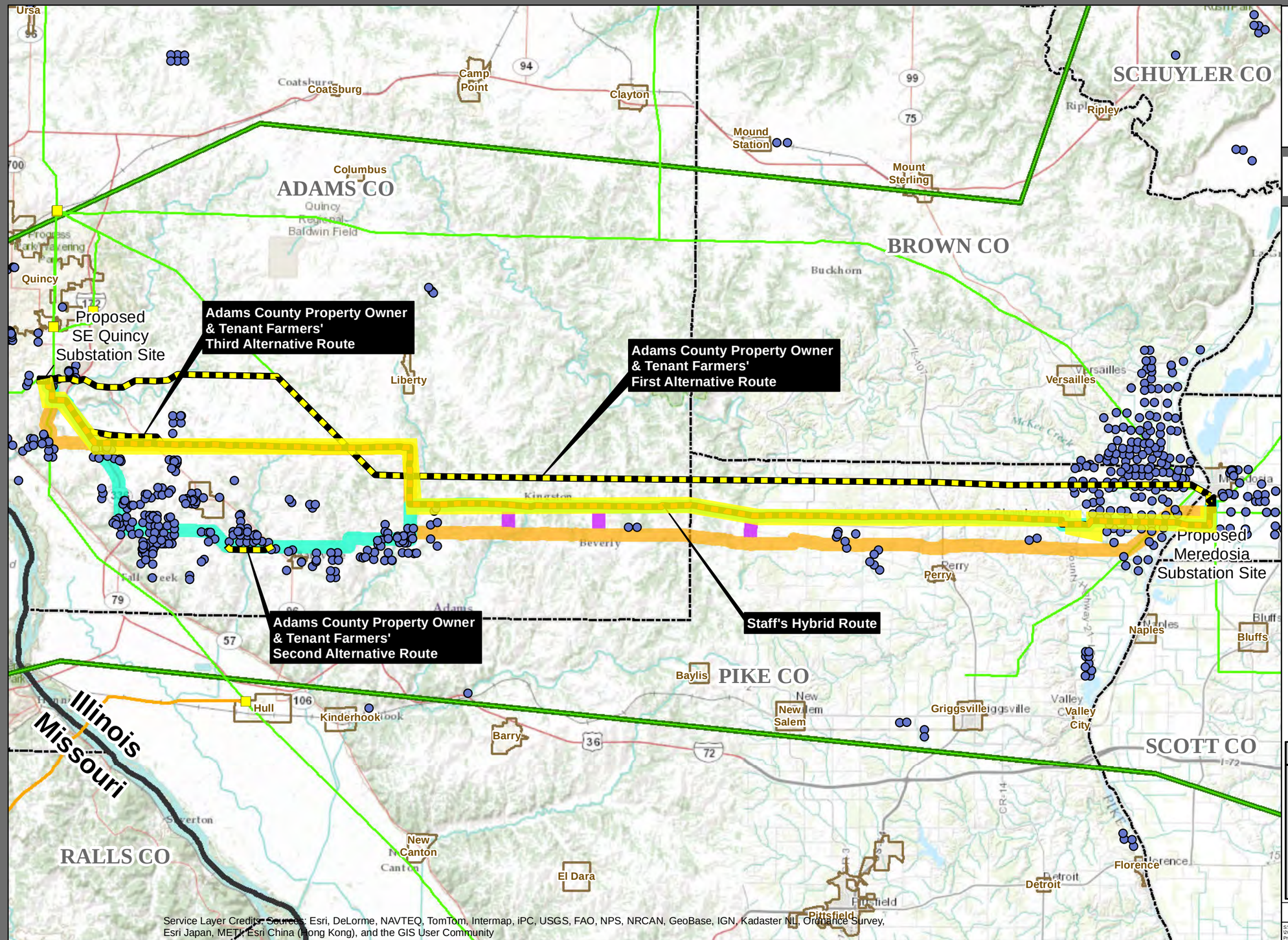
Each of ACPO's three proposed alternative routes is flawed. ACPO's Alternate Route 1, while perhaps lower cost in base dollar terms (ATXI Ex. 16.3 (Rev.), p. 2), presents significant routing concerns so that it is not the "least cost" as compared to the Hybrid Route. It would traverse an existing residential area near Highway 172, requiring the displacement of at least six assumed residences. (Tr. 748-51.) Moreover, it would require approximately 40 additional acres of tree removal. (ATXI Ex. 13.0C (2d Rev.), p. 14.) ACPO characterized the western part of ACPO Route 1 as a "partially acquired unoccupied corridor." (See, e.g., ACPO Murphy Cross Ex. 6.) But, as ATXI witness Ms. Murphy explained, approximately 50% of that corridor has not been acquired and any existing easements are too narrow to accommodate 345 kV transmission lines. (Tr. 747-48.) Therefore, the corridor does not offer any meaningful routing advantage. Additionally, ACPO Route 1 parallels an existing 138 kV line (see ATXI Ex. 13.3, p. 1), which may present reliability, operational and maintenance as discussed above. (ATXI Ex. 12.0 (Rev.), pp. 4-10.)

ACPO Route 2 modifies a portion of ATXI's Primary Route. (ATXI Ex. 13.3, p. 2.) The modification requires two additional dead-end structures and renders the route longer than ATXI's Primary and Alternate Routes, as well as the Hybrid Route, and would therefore increase the base cost. (ICC Staff Ex. 1.0R, p. 28.) Notably, the modification is located on a portion of ATXI's Primary Route that was not incorporated into the Hybrid Route. (ATXI Ex. 13.3, p. 2.) Thus, the Hybrid Route moots any need for this modification.

ACPO Route 3 modifies ATXI's Alternate Route in a way that would move the transmission line away from some homes but closer to others, and would require three additional dead-end structures. (ICC Staff Ex. 1.0R, p. 28.) This route also bisects several farm fields. (ATXI Cross Ex. 8.) Therefore, the modification is not advantageous.

As a result of these considerations, ATXI does not agree with Staff witness Mr. Rockrohr's assertion that ACPO's Alternate 1 is the least-cost option for this portion of the Project. Instead, ATXI recommends the Hybrid Route as the best option for the portion of the Project between the Southeast Quincy Substation and the proposed substation in Meredosia, Illinois, and this route should be approved by the Commission.

ATXI Figure 2: Quincy - Meredosia



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Ameren TRANSMISSION

Illinois Rivers Project

SE Quincy to Meredosia

Legend

- Intervenor Owned Property
- Proposed Intervenor Route
- Primary Route
- Alternate Route
- Segment Option
- Project Study Area
- Proposed Substation Site
- Existing Substation
- Municipal Boundary
- County Boundary
- State Boundary

Existing Transmission Line

- 345,000 (V)
- 161,000 (V)
- 138,000 (V)

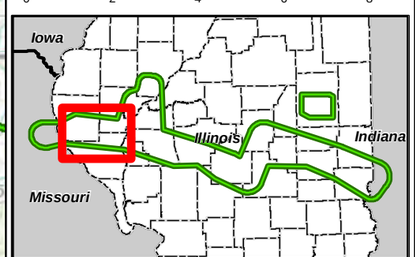
Existing Distribution Line

- 69,000 (V)

N W E S

1:224,000

0 2 4 6 8 Miles



DATE: 04/22/13	Proposed Intervenor Routes
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1. Length of the Line

	Hybrid Route	ATXI Primary Route	ATXI Alternate Route	ACPO Route 1	ACPO Route 2	ACPO Route 3
Estimated Length in Miles	46.3	48.7	48.2	43.6	Not specified	Not specified

(ICC Staff Ex. 1.0R, p. 30.)

2. Difficulty and Cost of Construction

There is no record evidence the Hybrid Route would be difficult to construct. In contrast, ACPO Route 1 would be difficult to construct relative to the Hybrid Route (and ATXI's Primary and Alternate Routes) because it would require displacement of six homes and more than 40 additional acres of tree removal. (ATXI Ex. 13.0C (2d Rev.), p. 14.) The record otherwise contains no meaningful distinction between the routes proposed as to the difficulty associated with their construction.

	Hybrid Route	ATXI Primary Route	ATXI Alternate Route	ACPO Alternate 1	ACPO Alternate 2	ACPO Alternate 3
Estimated Baseline Cost	$105.859 million	$105.957 million	$104.264 million	$96.738 million	Not specified but < $105.957 million	Not specified but < $104.264 million

(ATXI Ex. 16.3, p. 2.)

3. Difficulty and Cost of Operation and Maintenance

There is no record evidence the Hybrid Route would be more difficult or costly to operate or maintain relative to other routes proposed, and the record otherwise contains no meaningful distinction between the proposed routes regarding the difficulty or cost of operating and maintaining each.

4. Environmental Impacts

There is no record evidence the potential environmental impacts resulting from construction of the Hybrid Route would be greater than those resulting from the other proposed routes. Rather, the evidence suggests the Hybrid Route will have minimal environmental impacts. (ATXI Exs. 4.5, p. 3; 4.0, pp. 8-10.) This is because that route is a combination of ATXI's Primary and Alternate Routes, which were chosen as the result of an extensive environmental analysis process that balanced environmental impacts against other relevant factors. (ATXI Ex. 4.0, pp. 23-36.) As stated, ACPO Route 1 would require 40 additional acres of tree removal. (ATXI Ex. 13.0C (2d Rev.), p. 14.) ACPO Alternate 3 also would also require increased tree removal. (Id.)

5. Impacts on Historical Resources

They Hybrid Route will not impact any known historical resources. (ATXI Ex. 4.0, pp. 36-37.) There are 10 known archaeological sites within 75 feet of ATXI's Primary Route, and 4 known archaeological sites within 75 feet of ATXI's Alternate Route. (ATXI Ex. 4.0, p. 36.) There are no known historical resources within immediate proximity to either route, and, consequently, within immediate proximity to the Hybrid Route. (Id.) ATXI will work with IHPA to address issues that may arise during the construction process, and will obtain any required permits or approvals prior to construction. (Id., p. 42.)

6. Social and Land use Impacts

The Hybrid Route reflects an optimum location for the transmission line in that it would limit societal and land use impacts. (ATXI Exs. 4.0, pp. 8-10; 4.5, p. 1.) The Hybrid Route also alleviates concerns regarding impacts on farming operations raised by the majority of witnesses on behalf of ACPO, the only Intervenor related to this portion of the Project. (ATXI Cross Ex. 6.) As explained, ACPO Route 1 would impact an existing residential area.

7. Number of Affected Landowners and other Stakeholders and Proximity to Homes and other Structures

There are approximately 175 landowners and other stakeholders with property on or within 250 feet of either side of ATXI's Primary Route, and approximately 180 within the same proximity of ATXI's Alternate Route. (ATXI Ex. 5.4 (Rev.), pp. 1-6, 38-41.) These figures have not been calculated or the Hybrid Route. The Hybrid Route would not require displacement of any residences. ACPO Route 1 would require displacement of six residences. (ATXI Ex. 13.0C (2d Rev.), p. 14.)

	Hybrid Route	**ATXI Primary Route**	**ATXI Alternate Route**	**ACPO Alternate 1**	**ACPO Alternate 2**	**ACPO Alternate 3**
Residences 0-75 feet from centerline	0	0	0	6	Not specified	Not specified
Residences 75-150 feet of centerline	~14	6	18	9	Not specified	Not specified

(ATXI Exs. 4.5, p. 4; 13.0C (2d Rev.), pp. 14-15; see generally ATXI Ex. 4.2.)

8. Proximity to Existing and Planned Development

There is no record evidence the Hybrid Route is proximate to any existing or planned development. As stated, ACPO Route 1 crosses an existing residential development. (ATXI Ex. 13.0C (2d Rev.), p. 14.)

9. Community Acceptance

The Hybrid Route eliminates the concerns of the majority of witnesses on this portion, and so represents the route with the most community acceptance of any route proposed for the Quincy – Meredosia portion of the Project.

10. Visual Impact

The visual impacts, if any, will be substantially the same for any route. There is no record evidence that the Hybrid Route is less preferable considering visual impact than any other route proposed for this portion of the Project.

11. Presence of Existing Corridors

The Hybrid Route, as a combination of ATXI's proposed routes, emerged, from a comprehensive evaluation of opportunities and stakeholder input as to preferred opportunities, as discussed in Section IV.A.ii. (ATXI Ex. 4.0, pp. 5, 7.) The Hybrid Route follows section lines and county roads. (ATXI Ex. 13.3.)

ACPO Route 1 parallels an existing 138 kV transmission line along CR 800N (see ATXI Ex. 13.3, p. 1), but this may present reliability, operational and maintenance concerns, as discussed above. (ATXI Ex. 12.0 (Rev.), pp. 4-10.) Further, the "partially acquired unoccupied corridor" ACPO Route 1 utilizes (see, e.g., ACPO Murphy Cross Ex. 6), has not been fully acquired and any existing easements are too narrow to accommodate 345 kV transmission lines. (Tr. pp. 747-48.)

C. Meredosia – Ipava

ATXI's recommended route for Meredosia to Ipava follows ATXI's originally proposed Alternate Route, with a slight modification along to avoid a sensitive environmental area pursuant to a stipulation (covering the southern segment of the Alterate route) between ATXI and The Nature Conservancy (TNC). (Stipulation Ex. 3.) This "Alternate/Stipulated Route" is shown in orange on ATXI Exhibit 13.4, is highlighted on Figure 3, and was designated the "Rebuttal Recommended Route" in ATXI's rebuttal testimony. The only other route with any

current support for this portion of the Project is TNC's first alternative route (TNC Route 1).[9] The Alternate /Stipulated Route is superior to that route, however, because it effectively balances the concerns raised by most of the Intervening parties, and avoids environmentally sensitive areas.

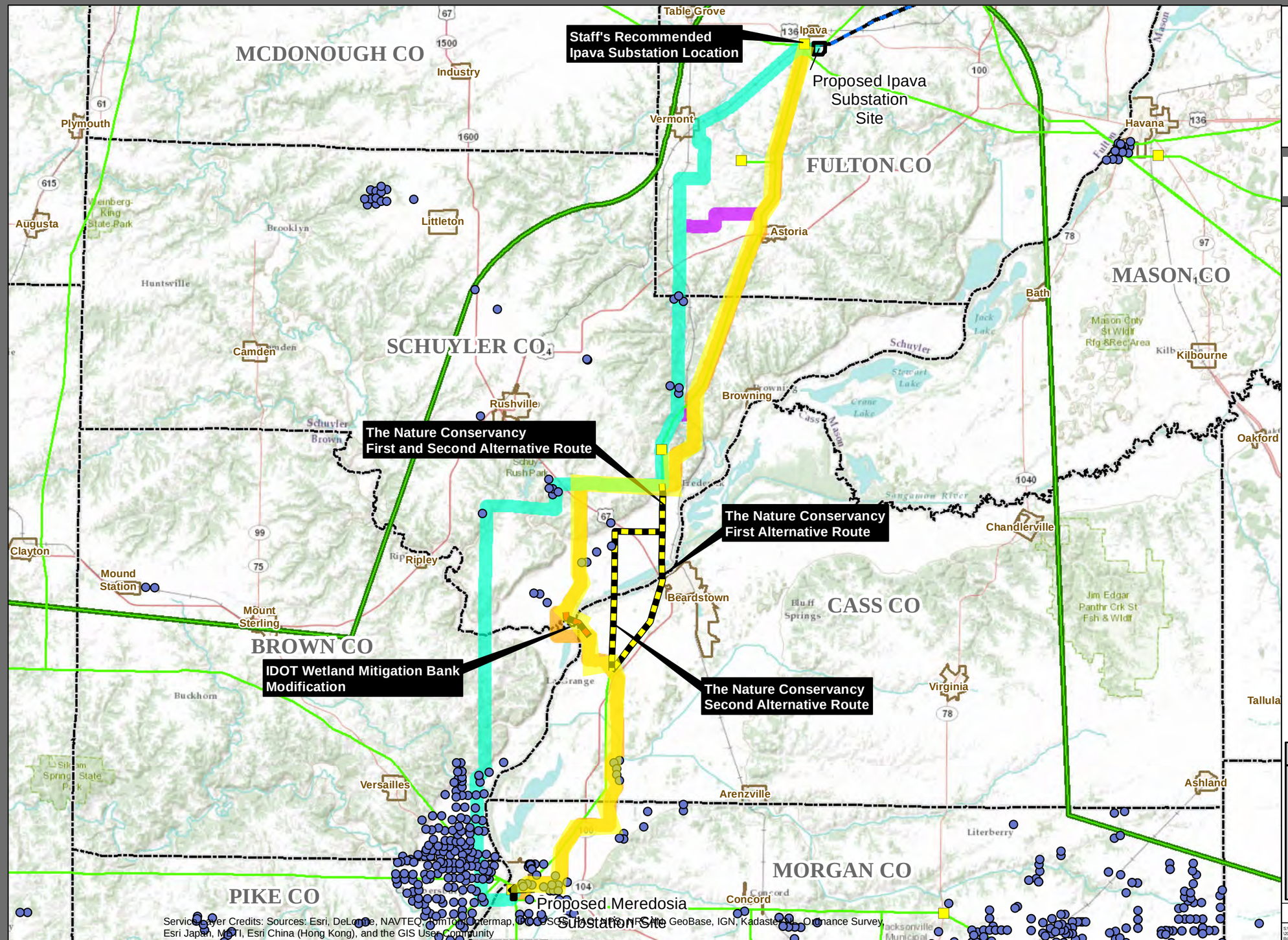
The Alternate/Stipulated Route has gained community acceptance by most effectively addressing the concerns raised by Intervening parties. This route is supported by TNC, and avoids the property of several other Intervenors including Sherry Ralston, the Schuyler County Property Owners, Thomas and Lynda Freehill McLaughlin, and James and Tori Phillips. (Stipulation Ex. 3; ATXI Ex. 13.0C (2d Rev.), p. 25.) Also, Intervenor Wiese Farms opposes ATXI's Primary Route, but presumably would not be impacted by the Alternate/Stipulated Route. (Wiese Ex. 1.0.) The only party who was expressed opposition to the Alternate/Stipulated route is the Korsmeyer Family Farm because of an alleged impact on his farming operations. (Korsmeyer Ex. 1.0). However, the routing of the of the Alternate/Stipulated route avoids almost all of Mr. Korsmeyer's property, and where it does affect his property, it runs along the eastern side of one of the Korsmeyer parcels (ATXI Cross Ex. 5), so the Alternate/Stipulated Route should not interfere with the irrigation system there. (ATXI Ex. 10.0C (2d Rev.), p. 25.)

An added benefit of the Alternate/Stipulated Route is that it avoids the environmentally sensitive areas of the Spunky Bottoms Preserve, and the IDOT Wetland Mitigation Bank about which TNC initially raised concern. While ATXI does not concede that all the environmental impacts TNC theorized to occur would in fact occur (see TNC Exs. 1.0, 2.0, 3.0), ATXI is sensitive to the environmental concerns raised by TNC. The result is the Alternate/Stipulated Route . This route utilizes the extensive siting analysis conducted by ATXI, but avoids the

[9] The other routes proposed for this portion of the Project were ATXI's Primary Route and TNC's second alternative route. However, no party currently recommends approval of either.

environmentally sensitive areas identified by TNC.

Only Staff witness Mr. Rockrohr supports a different route for this portion of the Project, TNC's Route 1. Notably, TNC has withdrawn its support for that route. (Stip. Ex. 3.) And the basis for Mr. Rockrohr's support is narrow at best. Relying solely on his review of aerial maps to determine route length and number of dead end structures (ICC Staff Ex. 1.0R, p. 33), Mr. Rockrohr concludes TNC Route 1 is preferable because all things being equal, it would have a lower dollar cost. (ICC Staff Ex. 1.0R, p. 33.) However, he admits "[t]here may be additional relevant facts about some of the routes that I do not know, which could result in a route being more or less desirable than I indicate." (Id., p. 21.) In fact, there are relevant facts that make TNC Route 1 less desirable. TNC Route 1 would likely result in the displacement of a residence. (ATXI Ex. 13.0C (2d. Rev.), p. 22.) TNC Route 1 also conflicts with a greater number of center pivot irrigation systems (id.), and parallels an existing 138kV line, which may present reliability or operational issues. (ATXI Ex. 12.0, p. 10.) Thus, not only has the Alternate/Stipulated Route garnered more support than TNC Route 1, but also it has less societal impact relative to that route.



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1. Length of the Line

	ATXI Alternate Route	ATXI Primary Route	TNC ALT 1
Estimated Length in Miles	48.6	50.2	42.1

(ATXI Ex. 4.5, p. 1; ICC Ex. 1.0R, p. 33.)

2. Difficulty and Cost of Construction

	Stipulated Route	ATXI Primary Route	ATXI Alternate Route	TNC Alt. 1
Estimated Base Cost	**$113.276 Million**	**$101.516 Million**	**$104.875 Million**	**$107.516 Million**

(ATXI Ex. 16.3 (Rev.), p. 3.)

There is no record evidence the Alternate/Stipulated Route would be difficult to construct. As discussed above, displacement of a residence presents a significant difficulty to the construction of TNC Route 1. (ATXI Ex. 13.0C (2d Rev.), p. 22.) Additionally, TNC's Route 1 conflicts with a greater number of center pivot irrigation systems. The record otherwise contains no meaningful distinction between the routes proposed as to the difficulty associated with their construction. (Id.)

3. Difficulty and Cost of Operation and Maintenance

There is no record evidence the Stipulated Route would be more difficult to operate and maintain or would be more costly to operate and maintain relative to the other routes proposed. The potential for increased operating and maintenance issues exists for TNC Route 1 absent sufficient separation between that route and the existing transmission line to which it runs parallel. (ATXI Ex. 12.0 (Rev.) pp. 5-6.) The record otherwise contains no meaningful distinction between the proposed routes regarding the difficulty or cost of operating and maintaining each.

4. Environmental Impacts

Both the Alternate/Stipulated Route and TNC Route 1 avoid the Spunky Bottoms Preserve, and the IDOT Wetland Mitigation Bank identified by TNC during the course of this proceeding as environmentally sensitive areas. TNC, however, has withdrawn support for TNC Route 1.

ATXI's Primary Route crosses a portion of the Spunky Bottoms Preserve and certain upland conservation areas. While the Primary Route does not completely avoid the environmentally sensitive areas, ATXI does dispute the extent of the impact.[10] All three TNC witnesses make various claims about threats to endangered species, including avoidance, collision, and electrocution, threats to the natural ecology of the Preserve due to habitat fragmentation, and erosion and wetland impacts due to the construction and maintenance of the proposed Primary Route. TNC failed to substantiate its claims with peer-reviewed scientific literature . (See ATXI Ex. 18.0, p. 4.) Additionally, many of the ecological effects cited, including destruction of plants, establishment of invasive plants and animal disturbance (TNC Ex. 1.0. p. 10), are almost entirely temporary and can be mitigated. (ATXI Ex. 19.0) (Tims Reb.), p. 4.) So while the Primary Route does not entirely avoid the Spunky Bottoms Preserve, the impacts claimed by TNC have not been substantiated, may be overstated, and can be mitigated.

5. Impacts on Historical Resources

There are no known impacts to Historical Resources, including registered National Historic Places, or archeological historic places that would prevent construction of either of ATXI's routes, and ATXI will continue to work with the IHPA to address any issues that may arise during the construction process. (ATXI Ex. 4.5, p. 2)

[10] ATXI supports the Stipulated/Alternate Route, and this discussion is intended to preserve its arguments if that route is not approved.

6. Social and Land use Impacts

While certain social and land use impacts are unavoidable, as discussed, ATXI's route siting analysis was a comprehensive review process that attempted to minimize these impacts. In fact, as discussed above, unlike the TNC Alternatives, the Alternate/Stipulated Route does avoid any impact to existing center-pivot irrigation systems.

7. Number of Affected Landowners and other Stakeholders and Proximity to Homes and other Structures

There are approximately 192 landowners and other stakeholders with property on or within 250 feet of either side of ATXI's Alternate Route. (ATXI Exs. 5.0, p. 4; 5.4 (Rev.), pp. 41-45.) Given that the Stipulated Route is a slight modification of the Alternate Route, approximately the same number affected landowners can be assumed. There are approximately 224 landowners and other stakeholders with property on or within 250 feet of either side of ATXI's Primary Route. (ATXI Exs. 5.0, p. 4; 5.4 (Rev.), pp. 6-11.)

	Residential Structures within 0-75 feet	**Residential Structures within 75-150 feet**
ATXI Alternate Route	0	4
ATXI Primary Route	0	3
TNC Alternate 1	1	Not specified
TNC Alternate 2	Not specified	Not specified

(ATXI Ex. 4.5, p. 4.)

As discussed above, TNC Route 1 would require the displacement of a residence. (ATXI Ex. 13.0C (2d Rev.), p. 22.) Additional information about TNC's routes does not appear in the record.

8. Proximity to Existing and Planned Development

There is no record evidence the Alternate/Stipulated Route (or ATXI's Primary Route) is proximate to any existing or planned development. There is otherwise no record evidence

regarding the proximity of the other routes proposed to existing and planned development.

9. Community Acceptance

As discussed above, the Alternate/Stipulated Route is supported by TNC, and it avoids the property of several other Intervenors. Thus, it is the consensus route for this portion of the Project.

10. Visual Impact

Visual impacts, if any, will be substantially the same for any route. There is no record evidence that the Stipulated Route is less preferable considering visual impact than any other route proposed for this portion of the Project.

11. Presence of Existing Corridors

TNC Route 1 parallels an existing 138 kV line. As discussed above, parallel transmission lines can result in increased cost and raise reliability issues. (See ATXI Ex. 12.0, p. 6.)

D. Meredosia – Pawnee

ATXI recommends approval of its Alternate Route, which was stipulated to by Intervenors Morgan and Sangamon County Landowners and Tenant Farmers (MSCLTF) and FutureGen Industrial Alliance, Inc. (FutureGen) as the best option for the portion of the Project between Meredosia and Pawnee. (See Stip. Exs. 1; 2.) This "Stipulated Route" is shown in orange on ATXI Exhibit 13.5 (Rev.) and highlighted on Figure 4, and was designated the "Rebuttal Recommended Route" in ATXI's rebuttal testimony. Intervenors the Pearce Family also support the Stipulated Route. (Pearce Ex. 1, p. 7.)

MSCLTF submitted an alternative route proposal, but it was subsequently withdrawn in accordance with the Stipulation. (See ATXI Ex. 13.0C (2d Rev.) (Murphy Reb.), p. 31; see also Stipulation Ex. 1.) Staff witness Mr. Rockrohr, in testimony, supported this Route, based solely on length of that route and its related initial dollar costs. (ICC Staff Ex. 1.0R, p. 36) However,

the list of landowners affected by MSCLTF Route 1, submitted by MSCLTF with its route proposal apparently is incomplete, since MSCLTF made a request to supplement its landowner list which was never granted by the ALJs. (ATXI Ex. 13.0C (2d Rev.), p. 33.) For that reason alone, its route proposal presents concerns. Also, that route co-locates the proposed 345 kV line with an existing 138 kV line, which poses reliability concerns, as discussed. (See ATXI Ex. 12.0, pp. 10-11.)

The Morgan Sangamon and Scott Counties Land Preservation Group (MSSCLPG) advocates approval of ATXI's Primary Route. (MSSCLPG Ex. 1.0, p. 2.) Staff witness Mr. Rockrohr's second preference is for ATXI's Primary Route, as modified by the Pearce Family's alternate route proposal. (ICC Staff Ex. 1.0R, p. 36.) That modification would require the proposed 345 kV line to be placed parallel to an existing 138 kV line. (ATXI Ex. 13.5 (Rev.), pp. 3-4.) ATXI prefers to avoid placing 345 kV lines parallel to existing 138 kV lines, for the reasons discussed above. Regardless, approval of the Stipulated Route would alleviate the concerns that led the Pearce Family to propose its modification to ATXI's Primary Route. (See Pearce Ex. 1, pp. 7-8.)

In addition, FutureGen testified that the Primary Route could potentially interfere with its proposed operations. (FutureGen Ex. 1.0, pp. 1-5.) The Stipulated Route would eliminate FutureGen's concerns. ATXI therefore believes the Stipulated Route represents the best balancing of factors and interests in light of the issues described above and the compromise reached through the Stipulation.